Coronary Heart Disease
Managed Clinical Network

Atrial Fibrillation (AF)

Guidelines for Primary Care
**DEFINITION**

Atrial Fibrillation (AF) is defined as a cardiac arrhythmia with the following characteristics:

1. The surface ECG shows “absolutely” irregular QRS complex intervals
2. There are no distinct P waves on the surface ECG

Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia, occurring in 1–2% of the general population.

The prevalence of AF increases with age, from 0.5% at 40–50 Years, to 5–15% at 80 years.

Men are more often affected than women.

**PATIENT IDENTIFICATION**

An irregular pulse should always raise the suspicion of AF; however a 12 lead ECG is necessary to make a diagnosis.

Many Patients may be entirely asymptomatic, particularly if they have good heart rate control. The AF may then be picked up at a routine pulse check.

Of those who have symptoms, they may include:

- Dyspnoea
- Palpations
- Fatigue
- Dizziness/syncope

**STROKE RISK**

Patients in AF have a five fold increase risk of having a stroke, mainly due to the increased risk of atrial thrombus which may embolise to the brain.

When a stroke occurs in patients with AF, the risk of mortality and disability as well as recurrent stroke is higher than with other strokes.

The risk of stroke appears the same in both men and women and in patients with either paroxysmal or ongoing AF.
INVESTIGATIONS

Once a clinical diagnosis of AF is confirmed by 12 lead ECG, underlying causes of AF should be sought.

Therefore all patients should have:

- Echocardiogram (unless previous echocardiogram in the last 6 months and no clinical deterioration in that time)
- Consider 24 hour ECG monitor (for rate assessment)
- Bloods including:
  - U&E
  - LFTs
  - Glucose (diabetes testing)
  - Cholesterol (CVD risk stratification)
  - FBC

CLASSIFICATION OF AF

1. Paroxysmal (self terminating, less than 7 days duration).
2. Persistent (Duration of 7 days or more or continuing until terminated by drugs or cardioversion).
3. Long standing persistent (has lasted for ≥1 year when it is decided to adopt a rhythm control strategy).
4. Permanent, accepted (presence of the arrhythmia is accepted by the patient (and physician). As a result, rhythm control options are not pursued.

GOALS AND MANAGEMENT OF AF

Atrial Fibrillation

- Exclude/Treat underlying cause
- Reduce Thromboembolic risk
- Prevent circulatory instability (heart rate/rhythm management)
**TREATMENT**

1. **Anticoagulation**

All patients should have their stroke risk formally assessed using the CHADS\textsubscript{2} score:

| C | Congestive Heart Disease | 1 |
| H | Hypertension | 1 |
| A | Age $>$ 75 years | 1 |
| D | Diabetes | 1 |
| S | Prior stroke or TIA | 2 |

**Recommendation for anticoagulation:**

<table>
<thead>
<tr>
<th>CHADS\textsubscript{2} score</th>
<th>0</th>
<th>1</th>
<th>2 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke risk</td>
<td>low</td>
<td>moderate</td>
<td>moderate to high</td>
</tr>
<tr>
<td>Anticoagulation</td>
<td>nil</td>
<td>consider oral anti-coagulation</td>
<td>oral anti-coagulation</td>
</tr>
<tr>
<td>Considerations</td>
<td>Do CHA\textsubscript{2}DS\textsubscript{2} VASc</td>
<td>Note INR range 2.0 - 3.0</td>
<td>Note INR range 2.0 - 3.0</td>
</tr>
</tbody>
</table>

Those that score 0 on CHADS\textsubscript{2} should have CHA\textsubscript{2}DS\textsubscript{2}-VASc score carried out to reassess their risk as a CHADS\textsubscript{2} score of 0 still has a 1.9% annual stroke risk.

<table>
<thead>
<tr>
<th>CHA\textsubscript{2}DS\textsubscript{2}-VASc Score</th>
<th>Stroke risk %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1.3</td>
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<tr>
<td>2</td>
<td>2.2</td>
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<tr>
<td>3</td>
<td>3.2</td>
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<tr>
<td>4</td>
<td>4.0</td>
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<tr>
<td>5</td>
<td>6.7</td>
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<tr>
<td>6</td>
<td>9.8</td>
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<tr>
<td>7</td>
<td>9.6</td>
</tr>
<tr>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>9</td>
<td>15.2</td>
</tr>
</tbody>
</table>

4 Atrial Fibrillation (AF)
The vast majority of patients in atrial fibrillation will be managed by rate control, i.e. betablockers, in primary care.

**Rate/Rhythm**

- Symptomatic
  - Yes: New onset?
    - Yes: No underlying structured disease
      - Yes: Normal sized left atrium
        - Yes: Consider rhythm management
      - No: No underlying structured disease
    - No: Rate management
      - Good Rate Control
        - No

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2. Rate/rhythm Management

Rhythm management should be considered for patients who are:
1. Symptomatic
2. Have new onset AF
3. No underlying structural disease
4. Normal sized left atrium

Drugs for rhythm management include:
- Amiodarone (monitor LFTs and TFTs), commence 200mg tid for 7/7 then 200mg bd for 7/7, then 200mg od thereafter
- Dronedarone (monitor LFTs and reassess base line creatinine, annual ECGs).
- Flecainide (only for those with NO concurrent heart disease)

Rate management should be considered for patients who are:
1. Asymptomatic
or Have long standing AF
or Have had unsuccessful attempt at cardio version
or Have recurring episodes of AF
or Failed rhythm control

Drugs for rate control include:
- Beta blockers: first line treatment i.e. Bisoprolol
- Rate limiting calcium channel blockers for those intolerant of betablokers i.e. Diltiazem, Tildiem
- Digoxin (for sedentary elderly only), this can also be added to those on rate limiting medication who have not achieved good rate control (i.e. Bisoprolol and Digoxin).
Cardiology referral:
• Suspected or known structural/valvular disease or left ventricular dysfunction
• Ongoing symptoms despite rate/rhythm control
• Failed to rate control on 2 medications
• Intolerant of more than 2 medications

Rapid Access Atrial Fibrillation Clinic:
For patients with:
• Recent onset Atrial Fibrillation

Exclusion criteria:
• Known/long standing AF
• Known valve disease
• Known alcohol abuse with liver impairment
• Left ventricular systolic dysfunction/cardiomyopathy

CONTACT DETAILS
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